

Type in the collection of the Zoological Museum of the Imperial Academy of Sciences at St. Petersburg.

This species is evidently aquatic, like *Crossopus fodiens*, the fringes of the manus and pes being even better developed than in that species; but in all generic characters it agrees with those of the genus *Sorex*. While agreeing with *Sorex palustris* from the adjoining continent of America in external characters, it differs from it in the proportions of its teeth, resembling in this respect the section of which *S. vulgaris* is typical, while *S. palustris* agrees with those represented by *S. vagrans*. No better proof could be afforded of the uselessness of retaining *Neosorex* as a distinct genus for the American species characterized by the possession of swimming-fringes in the digits, while the tail is simple, as in *Sorex*. These species are in fact aquatic forms of the genus *Sorex*.

LIII.—*Note on the Variation of the Mandibles in the Males and Descriptions of the Females of the Prionidous Genera Priotyranus and Cacosceles.* By C. J. GAHAN, M.A., Assistant, Zoological Department, British Museum.

THE variation in the form of the mandibles within the same species of certain genera of Prionidæ has doubtless been known to many entomologists who have studied the family, though no special attention seems to have been called to it. The variation itself is probably of greater degree than has been hitherto suspected. Lacordaire, at least, in his treatment of the Prionidæ, does not give evidence of his knowledge of any great variation.

The subject has lately been brought under my notice while working out the Longicornia of a collection made by G. F. Hampson, Esq., in the Nilghiri Hills, South India.

One species was represented by four specimens, three of which have mandibles so different in form from the fourth, and in other respects are in such complete agreement with it, that I was at first led to believe that I had to deal with the two sexes. But all four proving to be males, it then seemed to be a case of variation in the mandibles parallel to that which occurs in many genera of Lucanidæ (*Odontolabis*, for example). The species was referable to the *Prionus mordax* of White, on which Thomson has founded his genus *Priotyranus*. The single specimen with incompletely developed mandibles agrees with the male type from which White described the species.

The other three agree with the figure and description which Thomson has given of the species.

Thomson and Lacordaire must have either overlooked or misunderstood White's description of the mandibles, for no mention is made by them of the difference in form.

The first form is well shown in the figure given by Thomson (Arch. Entom. i. pl. x. fig. 1) and is fully described in Lacordaire's characterization of the genus.

The second form fully resembles that of the female, but is somewhat larger in size.

The female of the species was unknown to Thomson and Lacordaire, while White's reference to it is both inaccurate and incomplete. The following are its characters, taken from some fine specimens from the Animallai Hills:—

Mandibles broader than thick, narrowed to an edge on the inner side, provided with teeth along their whole inner edge, strongly curved in and terminating in a sharp point at tip, meeting along their whole length when closed. Head and prothorax coarsely rugosely punctured as in the male; the lateral spines of the prothorax exactly as in the male, but with the spine at the anterior angle somewhat feebler. (White's description in this respect is quite misleading.) Elytra as in the male. Antennæ much slenderer than in the male, not surpassing three fourths the length of the elytra, with the first six joints smooth, glossy, and sparingly punctured, the remaining joints dull and marked with fine longitudinal striations. The last ventral segment of the abdomen is slightly elongated and is rounded at the apex. (In the male this segment is much shorter and broader and is narrowly and sinuately truncated at the apex.)

In addition to the four specimens mentioned there is in the Museum collection a very small male from Bombay with mandibles of the female form. It is much darker in colour, nearly black, but does not otherwise seem distinct. I have not seen any specimens of this genus with distinctly intermediate forms of mandibles.

On extending my observations to allied genera I found a variation of precisely the same character in the African genus *Cacosceles*, as exemplified by some specimens of *C. Lacordairei*, Bates. Here were males with the female forms of the mandibles and males with intermediate forms. This was the more interesting as Lacordaire had, apparently with great confidence, described as females some of the intermediate male forms. The female is in fact very different from the male*.

* For excellent figures of both sexes and descriptions of the females see Peringuey, Trans. S. African Phil. Soc. iii. p. 145, pl. iv. figs. 1-4. These descriptions had escaped my attention before writing the above.

These are its characters:—Mandibles short and broad, narrowed to a thin edge and feebly toothed on the inner side, sharply incurved and pointed at the tip, with their edges superposed along nearly their whole length when closed. Antennæ scarcely reaching to half the length of the elytra. The four posterior tibiæ differ from those of the males in being simple and not dilated. The last ventral segment of the abdomen is narrowly rounded and somewhat pointed at the apex; in the male this segment is transversely truncated. The hind coxæ are rather widely separated and the intercoxal process of the abdomen is obtusely rounded in front; in the male the coxæ are closer together and the intercoxal process is sharply pointed in front.

In the Indian genus *Acanthophorus*, as represented by *A. serraticollis*, Oliv., the same kind of variation is found.

LIV.—*Natural History Notes from H.M. Indian Marine Survey Steamer 'Investigator,' Commander Alfred Carpenter, R.N., D.S.O., commanding.*—No. 13. *On the Bathybial Fishes of the Bay of Bengal and neighbouring waters, obtained during the seasons 1885-1889.* By ALFRED ALCOCK, M.B., Surgeon-Naturalist to the Survey*.

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§ 1. *Outline of the Hydrography of the Region.*

THE bathybial fishes hitherto collected by the 'Investigator' are all from the arm of the Indian Ocean which intervenes between the Indian and Malayan peninsulas—the sea which is generally spoken of as the Bay of Bengal. This vast stretch of water, which occupies roughly the meridians between 78° and 98° E. and the parallels between 5° and 22° N., consists of three distinct basins, namely the Bay of Bengal proper in the centre, the Gulf of Manaar to the south-west, and the Andaman Sea on the east. And it will be fitting to prelude the account of the fish-inhabitants of their

* Communicated by the Superintendent of the Indian Museum, Calcutta.